

Name: _____

at1110paper__practice__test (v3)

1. Solve the equation.

$$(7x + 3)(5x - 2) = 0$$

$$x = \frac{-3}{7} \quad x = \frac{2}{5}$$

2. Solve the equation with factoring by grouping.

$$20x^2 - 15x - 8x + 6 = 0$$

$$(5x - 2)(4x - 3) = 0$$

$$x = \frac{2}{5} \quad x = \frac{3}{4}$$

3. Factor the expression.

$$x^2 - 2x - 48$$

$$(x + 6)(x - 8)$$

4. Solve the equation.

$$8x^2 + 9x - 13 = 3x^2 + 5x - 4$$

$$5x^2 + 4x - 9 = 0$$

$$(5x + 9)(x - 1) = 0$$

$$x = \frac{-9}{5} \quad x = 1$$

5. Expand the following expression into standard form.

$$(3x + 7)(3x - 7)$$

$$9x^2 - 21x + 21x - 49$$

$$9x^2 - 49$$

6. Expand the following expression into standard form.

$$(9x + 2)(5x - 7)$$

$$45x^2 - 63x + 10x - 14$$

$$45x^2 - 53x - 14$$

7. Factor the expression.

$$49x^2 - 36$$

$$(7x - 6)(7x + 6)$$

8. Expand the following expression into standard form.

$$(4x + 5)^2$$

$$16x^2 + 20x + 20x + 25$$

$$16x^2 + 40x + 25$$